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# SATELLITE MOISTURE RETRIEVAL TECHNIQUES VOLUME 2 ATMOSPHERIC SOUNDING BIBLIOGRAPHY

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## INTRODUCTION

This Atmospheric Sounding Bibliography of remote sensing of temperature and humidity is divided into three sections. The first digit of the page number indicates the section number, e.g., pp 1-5, 2-5, 3-5.

Section 1 is the complete bibliography referenced by year, and arranged in alphabetical order within each year.

Section 2 is referenced by a restricted list of subjects -- papers describing measurements of temperature and/or water vapor, and papers on theory -- ordered by year and name of author.

Section 3 is referenced by measurement instruments, and ordered by year and name of author.

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### SECTION 3: REFERENCED BY INSTRUMENTS

#### ESMR/SMMR

(Electrically Scanned Microwave Radiometer/  
Scanning Multichannel Microwave Radiometer)

1. REMOTE SENSING OF ATMOSPHERIC WATER VAPOR, LIQUID WATER AND WIND SPEED AT THE OCEAN SURFACE BY PASSIVE MICROWAVE TECHNIQUES FROM THE NIMBUS-5 SATELLITE

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HIRS

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(June 1979)

10. HIGH RESOLUTION INFRARED RADIATION SOUNDER MOD 2 (HIRS 2)

Koenig, E. W.  
ITT Aerospace Optical Div.  
Final Project Report 1979  
Rept No: NASA-CR-160030 (August 1979)

11. THE TIROS N OPERATIONAL VERTICAL SOUNDER

Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Wark, D. Q.; McMillin, L. M.  
Nat. Envir. Sat. Serv., NOAA, Madison, WI, USA  
Bull. AM. Meteorol. Soc. (USA), Vol. 60, No. 10, 1177-87 (October 1979)  
Codon: BAMAT

12. COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS  
FOR SEVERAL GEOGRAPHICAL AREAS

Cheng, N. M.; Scoggins, J. R.  
Texas A and M University  
Rept. No. NASA-RP-1073; M-330 (1981)

13. COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS FOR  
SEVERAL GEOGRAPHICAL AREAS

Cheng, N. M.; Scoggins, J. R.; Texas A and M University  
Rept No. NASA-RP-1073; M-330 (1981)

14. ATMOSPHERIC STRUCTURE DETERMINED FROM SATELLITE DATA

Knight, Keith Shelburne; Scoggins, James R.  
Texas A and M, NASA Hdqt. Washington.  
Grant: DAAG29-76-G-0078 (January 1981)

15. VERTICAL MASS AND MOISTURE STRUCTURE FROM TIROS-N

Smith, W. L.; Nagle, F. W.; Handen, C. M.; Woolf, H. M.  
National Earth Satellite Service, University of Wisconsin,  
Madison, WI  
Bull. Am. Meteorological Soc., Vol. 62, No. 3, pp 388-93  
(March 1981)

HRIR

(High Resolution Infrared Radiometer)

1. THE IMPROVEMENT OF CLEAR COLUMN RADIANCE DETERMINATION WITH A  
SUPPLEMENTARY 3.8 MICROMETER WINDOW CHANNEL

Smith, William L.  
Nat. Environ. Sat. Serv., NOAA, Washington  
Rept No: NESCTM-16 (July 1969)

## ITPR

(Infrared Temperature Profile Radiometer)

1. UNIVERSAL TRANSMITTANCE REPRESENTATIONS FOR APPLICATION TO ITPR MEASUREMENTS  
Davis, Paul A.  
Stanford Research Inst.  
Final Rept Contract: NOAA-2-35136 (May 1972)
2. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART I. MEASUREMENT CHARACTERISTICS AND DATA REDUCTION PROCEDURES  
Smith, W. L.; Woolf, H. M.; Abel, P. G.; Hayden, C. M.; Chalfant, M.  
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Technical Memo. NOAA-TM-NESS-57 (June 1974)
3. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART II. RESULTS  
Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.  
Nat. Envir. Sat. Serv., NOAA, Washington (USA)  
Technical Memo. NOAA-TM-NESS-71 (June 1974)
4. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART 2: RESULTS  
Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.  
Nat. Envir. Sat. Serv., NOAA, Washington (USA)  
Rept No: NASA-CR-146089; NOAA-75082801-PT-2 (July 1975)
5. A COMPARISON BETWEEN NIMBUS 5 THIR AND ITPR TEMPERATURES AND DERIVED WINDS WITH RAWINSONDE DATA OBTAINED IN THE AVE 2 EXPERIMENT  
Arnold, J. E.; Scoggins, J. R.; Fuelberg, H. E.  
Texas A&M University  
Rept No: NASA-CR-2757; M-180 (October 1976)

## IRIS

### (Infrared Interferometer Spectrometer)

#### 1. INTERFEROMETER EXPERIMENT ON NIMBUS 3: PRELIMINARY RESULTS

Hanel, R.; Conrath, B.  
Goddard, NASA, Greenbelt, MD., USA  
Science (USA) Vol.165, No.3899 1258-60 (1969)

#### 2. THERMAL EMISSION SPECTRA OF THE EARTH AND ATMOSPHERE FROM THE NIMBUS 4 MICHELSON INTERFEROMETER EXPERIMENT

Hanel, R. A.; Conrath, B. J.  
Goddard, NASA, Greenbelt, MD., USA  
Nature (GB) Vol. 228, No. 5267, 143 5 (1970)

#### 3. APPLICATION OF STEPWISE MULTIPLE REGRESSION TECHNIQUES TO INVERSION OF NIMBUS "IRIS" OBSERVATIONS

Ohring, G.  
GCA Corporation, Bedford, MA  
Monthly Weather Review, Vol. 100, No. 5, pp 336-44  
(May 1972)

#### 4. REMOTE SOUNDING OF STRATOSPHERIC TEMPERATURES USING HIGH RESOLUTION RADIANCE MEASUREMENTS FROM THE IRIS-D

Gallery, W. O.  
Chicago University.  
Report No: NASA-CR-141130 (December 1974)

#### 5. AN INFRARED RADIATIVE TRANSFER MODEL PART I: MODEL DESCRIPTION AND COMPARISON OF OBSERVATIONS WITH CALCULATIONS

Ellingson, R. G.  
Meteorology Program, University of Maryland, College Park, MD  
Gille, J. C.  
National Center for Atmospheric Research, Boulder, CO  
Journal of Atmospheric Science, Vol 35, No. 3 pp 523-45  
(March 1978)



## LI

### (Laser Instruments)

#### 1. OBSERVATION OF RAMAN SCATTERING BY WATER VAPOR IN THE ATMOSPHERE

Melfi, S. H.; Lawrence, J.D., Jr.  
NASA, Langley, Hampton, VA  
Appl. Phys. Letters (USA), Vol. 15, No. 9, 295-7 (1969)

#### 2. COMPARISONS OF H<sub>2</sub>O VAPOR PROFILES OBTAINED BY RADIOSONDE AND LASER BACKSCATTER

Cooney, John A.  
Drexel Inst. of Tech Philadelphia PA  
Rept No: Scientific 3  
Agency: AFCRL (1970)

#### 3. ATMOSPHERIC TEMPERATURE PROFILES USING SATELLITE BORNE LASER

Gale, W. A.  
Bellcomm, Inc.  
Rept No: NASA-CR-108907; TM-70-1011-1

#### 4. ATMOSPHERIC WATER VAPOUR MEASUREMENT BY RAMAN LIDAR

Strauch, R. G.; Derr, V. E.; Cupp, R. E.  
Nat. Envir. Sat. Service, NOAA, Boulder, Colo. USA  
Remote Sensing Environ. (USA) Vol 2, No. 2, 101 (1972)  
Codon: RSEEA7

#### 5. A METHOD FOR EXTENDING THE USE OF RAMAN LIDAR TO DAYTIME

Cooney, J. A.  
Drexel Univ., Philadelphia, PA., USA  
J. Appl. Meteorol. (USA), Vol. 12, No. 5, 888-90, (August 1973)  
Codon: JAMOAX

#### 6. ATMOSPHERIC WATER VAPOR MEASUREMENTS WITH AN INFRARED (10-MUM) DIFFERENTIAL ABSORPTION LIDAR SYSTEM

Murray, E. R.; Hake, R. D., Rf.; Van Der Laan, J. E.; Hawley, J. G.  
Stanford Res. Inst., Menlo Park, CA, USA  
Appl. Phys. Lett. (USA), Vol. 28, No. 9, 542-3 (May 1976)

7. RAMAN SCATTERING CROSS SECTIONS FOR WATER VAPOR  
Penney, C. M.; Lapp, M.  
General Electric Corp., Res. and Dev., Schenectady, NY, USA  
J. Opt. Soc. AM. (USA), Vo. 66, No. 5, 422-5 (May 1976)  
Codен: JOSAAH
8. A LASER METHOD OF OBSERVING SURFACE PRESSURE AND PRESSURE-ALTITUDE  
AND TEMPERATURE PROFILES OF THE TROPOSPHERE FROM SATELLITES  
Smith, William L.; Platt, C. M. R.  
Nat. Envir. Sat. Serv., Washington (USA)  
Rept No: NOAA-TM-NESS-89 (July 1977)
9. REMOTE MEASUREMENTS OF GASES USING DIFFERENTIAL-ABSORPTION  
LIDAR  
Murray, E. R.  
SRI International, Menlo Park, CA  
Optical Engineering, Vol. 17, No. 1, pp 30-38  
(January-February 1978)
10. MEASUREMENT OF ATMOSPHERIC TEMPERATURE PROFILES USING RAMAN LIDAR  
Gill, R.; Geller, K.; Farina, J.; Cooney, J.; Cohen, A.  
Phys. and Atmospheric Sci. Dept. Drexel Univ. Philadelphia, PA, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 2, 225-7 (February 1979)  
Codен: JAMOAX
11. RAMAN LIDAR HUMIDITY SOUNDING OF THE ATMOSPHERIC BOUNDARY LAYER  
Pourny, J. C.; Orszag, A.; Renaut, D.  
Ensta, Lab. D'optique Appliquee, Palaiseau, France  
Appl. Opt. (USA) Vol. 18, No. 8, 1141-8 (April 1979)  
Codен: APOPAI
12. LIDAR MEASUREMENTS OF ATMOSPHERIC HUMIDITY  
Zakharov, V. M.; Kalachinskii, S. F.; Kostko, O. D.; Krikunov, G. A.;  
Zhiguleva, I. S.  
Trans In: Sov. Meteorol. and Hydrol. (USA), No. 8, 98-05 (1979)  
Codен: SMHYDK

13. DENSITY AND TEMPERATURE PROFILES OBTAINED BY LIDAR BETWEEN 35 AND 70 KM

Hauchecorne, A.; Chanin, M. L.  
Cnrs. Verrieres-Le-Buisson, France  
Geophys. Res. Lett. (USA), Vol. 7, No 8, 565-8 (August 1980)  
Codex: GPRLAJ

14. MESURE DE LA PRESSION ET DE LA TEMPERATURE ATMOSPHERIQUES PAR ABSORPTION  
DIFFERENTIELLE LIDAR: INFLUENCE DE LA LARGEUR D EMISSION LASER

Megie, G.  
Service d Aeronomie du CNRS  
Verrieres le Buisson, France  
Applied Optics, Vol. 19, No. 1, pp 34-43  
(January 1980)

15. COMPLEMENTARITY OF UV AND IR DIFFERENTIAL ABSORPTION LIDAR FOR GLOBAL  
MEASUREMENTS OF ATMOSPHERIC SPECIES

Megie, G.; Menzies, R. T.  
Jet Propulsion Lab., Pasadena, CA  
Applied Optics, Vol. 19, No. 7, pp 1173-83  
(April 1980)

16. TEMPERATURE PROFILING BY RAYLEIGH SCATTERING LIDAR

Schwiesow, R. L.; Lading, L.  
Environmental Research Labs., NOAA, Boulder, CO  
Applied Optics, Vol. 20, No. 11, pp 1972-79  
(1 June 1981)

MSU

(Microwave Sounding Unit)

1. MICROWAVE BLACKBODY CALIBRATION OF THE TIROS-N MICROWAVE SOUNDER UNIT

Iwasaki, R. S.  
Jet Propulsion Lab., Pasadena, Ca, USA  
1978 IEEE MTT-S International Microwave Symposium Digest 248-51 (1978)  
27-29 (June 1978) Ottawa, Canada  
489 pp.

## 2. THE TIROS-N MICROWAVE SOUNDER UNIT

Swanson, P. N.; Harris, W. M.; Johnston, E. J.; Soltis, F. S.  
Jet Propulsion Lab., Pasadena, CA, USA  
Schwab, L.M.; Douglas, J.H. (Editors)  
Technology Growth for the 80s. 1980 IEEE MTT-S International Microwave  
Symposium Digest, 123-5 (May 1980) Washington, DC, USA  
Publ: IEEE, New York, NY

## NEMS/SCAMS

(Nimbus E Microwave Spectrometer/  
Scanning Microwave Spectrometer)

### 1. MICROWAVE RADIOMETRIC MEASUREMENTS OF ATMOSPHERIC TEMPERATURE AND WATER FROM AN AIRCRAFT

Rosenkranz, P. W.; Barath, F. T.; Blinn, J. C., III; Johnston, E. J.;  
Lenoir, W. B.; Staelin, D. H.; Waters, J. W.  
Calif. Inst. Technol., Pasadena, CA., USA  
J. Geophys. Res. (USA), Vol. 77, No 30, 5833-44, (October 1972)  
Codon: JGRE A2

### 2. MICROWAVE SPECTROMETER ON THE NIMBUS 5 SATELLITE: METEOROLOGICAL AND GEOPHYSICAL DATA

Staelin, D. H.; Barrett, A. H.; Waters, J. W.; Barath, F. I.;  
Johnson, E. J.; Rosenkranz, P. W.; Gaut, N. E.; Lenoir, W. B.  
M.I.T., Cambridge, Mass.  
Science (USA), Vol. 192, No. 4119, 1339-41 (December 1973)  
Codon: SCIEAS

### 3. REMOTE SENSING OF STRATOSPHERIC AND MESOSPHERIC TEMPERATURE BY MICROWAVE RADIOMETRY

Waters, J. W.; Staelin, D. H.  
MIT, Cambridge, MASS., USA  
Eos Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 278 (April 1973)

### 4. MICROWAVE ATMOSPHERIC TEMPERATURE SOUNDING: EFFECTS OF CLOUDS ON THE NIMBUS 5 SATELLITE DATA

Staelin, D. H.; Cassel, A. L.; Kunzi, K. F.; Pettyjohn, R. L.;  
Poon, R. K. L.; Rosenkranz, P. W.; Waters, J. W.  
Res. Lab. of Electronics, MIT, Cambridge, MA, USA  
J. Atmos. Sci (USA), Vol.32, No.10, 1970-6 (October 1975)  
Codon: JAHS AK

5. REMOTE SENSING OF ATMOSPHERIC TEMPERATURE PROFILES WITH  
THE NIMBUS 5 MICROWAVE SPECTROMETER

Waters, J. W.

Jet Propulsion Lab., Pasadena, CA

Kunzi, K. F.; Pettyjohn, R. L.; Poon, R. K. L.; Staehlin, D. H.

Mass. Inst. of Tech., Cambridge, MA

Journal of Atmospheric Science, Vol. 32, No. 10, pp 1953-69  
(October 1975)

6. SYNOPTIC-SCALE STUDIES USING THE NIMBUS 6 SCANNING MICROWAVE SPECTROMETER

Grody, N. C.; Pellegrino, P. P.

Nat. Envir. Sat. Serv., NOAA, Washington, DC, USA

J. Appl. Meteorol. (USA), Vol. 16, No. 8, 816-26 (August 1977)

Coden: JAMOAX

7. MICROWAVE SPECTROSCOPIC IMAGERY OF THE EARTH

Staehlin, D. H.; Rosenkranz, P. W.; Barath, F. T.;

Johnson, E. J.; Waters, J. W.

Science, Vol. 197, pp 991-93

(September 1977)

8. AN EXTENDED KALMAN-BUCY FILTER FOR ATMOSPHERIC TEMPERATURE PROFILE  
RETRIEVAL WITH A PASSIVE MICROWAVE SOUNDER

Ledsham, W. H.; Staehlin, D. H.

Dept. of Electrical Engng. and Computer Sci., Mit. Cambridge, MA USA

J. Appl. Meteorol. (USA), Vol. 17, No. 7, 1023-33 (July 1978)

Coden: JAMOAX

9. ATMOSPHERIC LIQUID-WATER CONTENT DERIVED FROM PARAMETERIZATION  
OF NIMBUS 6 SCANNING MICROWAVE SPECTROMETER DATA

Kuo-Nan Liou; Duff, A. D.

Dept. of Meteorology, Univ. of Utah, Salt Lake City, UT, USA

J. Appl. Meteorol. (USA), Vol. 18, No. 1, 99-03 (January 1979)

Coden: JAMOAX

10. GLOBAL BRIGHTNESS TEMPERATURE SPECTRA AT HIGH WAVENUMBERS UTILIZING  
SATELLITE MICROWAVE MEASUREMENTS

Stanford, J. L.

Phys. Dept., Iowa State Univ., Ames, IA, USA

J. Atmos. Sci. (USA), Vol. 37, No. 5, 1070-6 (May 1980)

Coden: JAHSK

PMR/SSU

(Pressure Modulated Radiometer/  
Stratospheric Sounding Unit)

1. SATELLITE TEMPERATURE SOUNDING OF THE ATMOSPHERE: GROUND TRUTH ANALYSIS

McClatchey, Robert A.  
Air Force Geophysics Lab Hanscom AFB Mass  
Rept No: AFGL-TR-76-0279; AFGL-AFSG-356 (November 1976)

2. DETERMINATION OF THE OPTIMUM FIELD OF VIEW AND SPACING BETWEEN OBSERVATIONS FOR A SATELLITE-BORNE SCANNING RADIOMETER OBSERVING THE STRATOSPHERE

Campbell, S.; May, B.  
UK Meteorological Office, , England  
Remote Sensing Environ. (USA), Vol.6, No.3, 157-67 (1977)  
Codon: RSEEA7

3. ANNUAL AND SEMIANNUAL WAVES IN THE TEMPERATURE OF THE MESOSPHERE AS DEDUCED FROM NIMBUS 6 PMR MEASUREMENTS

Crane, A. J.  
Clarendon Lab., Oxford, London, England  
Q. J. R. Meteorol. Soc. (GB), Vol. 105, No. 445, 509-20 (July 1979)  
Codon: QJRMAM

4. MEAN MERIDIONAL CIRCULATIONS OF THE STRATOSPHERE AND MESOSPHERE

Crane, A. J.; Haigh, J. D.; Phle, J. A.; Rogers, C. F.  
Pure and Appl. Geophys. (Switzerland), Vol. 118, No. 1, 307-2 (1980)  
Codon: PAGYA

5. REVIEW OF THE RADIANCE DISTRIBUTION IN THE UPPER MESOSPHERE AS OBSERVED FROM THE NIMBUS 6 PRESSURE MODULATOR RADIOMETER (PMR)

Labitzke, K.; Barnett, J. J.  
Inst. For Meteorology, Freie Univ. Berlin, Berlin, Germany  
Planet. and Space Sci. (GB), Vol. 29, No. 6, 673-85 (June 1981)  
Codon: PLSSAE

6. RADIOMETER FOR REMOTE SOUNDING OF THE UPPER ATMOSPHERE

Taylor, F. W.; Houghton, J. T.; Peskett, G. D.; Rodgers, C. D.;  
Williamson, E. J.  
Oxford Univ., England  
Appl. Opt. (USA), Vol.11, No. 1, 135-41 (January 1981)  
Codon: APOPAI

SSH

(Special Sensor H)

1. AN ALGORITHM TO RETRIEVE WATER VAPOR INFORMATION FROM SATELLITE MEASUREMENTS

Crane, Robert K.  
Environmental Research and Technology Inc.  
Final rept.  
Rept. No. NEPRF-TR-7-76-(ERT) (November 1976)

2. ERROR ANALYSES OF OPERATIONAL SATELLITE SOUNDINGS OF VERTICAL TEMPERATURE PROFILES

Mount, Wayne D.; Fow, B. Richard; Gustafson, Donalf E.; Ledsham, William  
Geo Atmospheric Corp  
Rept No: GAC-78-CR-001, AFGL-TR-77-0248 (December 1977)

3. SPECIAL SENSOR H (SSH) MOISTURE SOUNDING

Savage, Richard C.  
Air Force Global Weather Central Offutt AFB NE.  
Rept No: AFGWC TN-80 001 (March 1980)

SIRS

(Satellite Infrared Spectrometer)

1. COMPUTATIONS OF DOWNWARD RADIATION FLUX BASED UPON A RANDOM SAMPLE OF RADIOSONDE OBSERVATIONS, AND CORRELATION OF THE RESULTS WITH CORRESPONDING SIMULATED NIMBUS II SATELLITE AIR MASS PROPERTIES

Tupaz, Jesus Bonifacio (Masters Thesis)  
Naval Postgraduate School, Monterey, Calif. (June 1967)



2. ATMOSPHERIC TEMPERATURE: SUCCESSFUL TEST OF REMOTE PROBING

Wark, D. Q.; Hilleary, D. T.  
Nat. Envir. Sat. Serv., Washington, D. C., USA  
Science (USA) Vol.165, No. 3899 1256-8 (September 1969)

3. SIRS: AN EXPERIMENT TO MEASURE THE FREE AIR TEMPERATURE FROM A SATELLITE

Wark, D. Q.  
Nat. Envir. Sat. Service, Washington, D.C., USA  
Appl. Optics (USA), Vol. 9, No. 8, 1761-6 (August 1970)

4. VERTICAL SOUNDING OF THE ATMOSPHERE WITH NIMBUS IV INFRARED SPECTROMETER EXPERIMENT

Conrath, B. J.; Hanel, R. A.; Prabhakara, C.; Kunde, V. G.; Revah, I.;  
Salomonson, V. U.  
NASA, Greenbelt, MD., USA  
Proc. of 21st Congress of International Astronautical Federation,  
1009-18 (1971)

5. SOME ASPECTS OF PRACTICAL SOLUTION OF THE PROBLEM ON ATMOSPHERIC THERMAL SOUNDING FROM SATELLITES

Kondratyev, K. YA.; Pokrovsky, O. M.; Timofeev, YU. M.  
Napolitano, L.G. (Editors)  
Astronautical Research 1970. Proceedings of the 21st Congress  
of the International Astronautical Federation, 1027-30 (1971)

6. TEMPERATURE SOUNDING FROM SATELLITES

Fritz, S.; Wark, D. Q.; Fleming, H. E.; Smith, W. L.;  
Jacobowitz, H.; Hilleary, D. T.; Alishouse, J. C.  
National Environmental Satellite Service, NOAA, Washington, D.C.  
NOAA Technical Report NESS 59  
(July 1972)

7. RETRIEVAL OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITE MEASUREMENTS FOR DYNAMICAL FORECASTING

Smith, W. L.; Woolf, H. M.; Fleming, H. E.  
Journal Appl. Meteorology, Vol. 11, pp 113-22  
(February 1972)

8. THE MEASUREMENT OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITES

Major, G.

Kozpontí Legkorfizikai Intezet, Budapest, Hungary

Fiz. Sz. (Hungary), Vol. 23, No. 6, 174-8 (June 1973)

Coden: FISZA6

9. SATELLITE OBSERVATIONS OF ATMOSPHERIC WATER VAPOR

Wark, D. Q.; Lienesch, J. H.; Weinreb, M. P.

Nat. Envir. Sat. Serv., NOAA, Washington, DC USA

Appl. Opt. (USA), Vol. 13, No. 3, 507-11 (March 1974)

Coden: APOPAI

10. A FURTHER COMPARISON OF 50-MILLIBAR GEOPOTENTIALS OBTAINED FROM SATELLITE INFRA-RED SPECTROMETER SOUNDINGS AND ANALYSED CHARTS

Bailey, V.

Meteorol. Mag. (GB), Vol. 106, No. 1259, 165-9 (June 1977)

Coden: MTMGA5

11. OBSERVATIONS OF STRATOSPHERIC THERMAL STRUCTURE FROM SATELLITES AND ATLAS OF STRATOSPHERIC THERMAL STRUCTURE

Kleespies, T. J.

Colorado State University, Fort Collins, Co.

Environmental Research Papers, No. 8 (May 1977)

12. EXAMPLES OF HUMIDITY CHARACTERISTIC RETRIEVAL FROM SATELLITE OUTGOING THERMAL RADIATION MEASUREMENTS

Juznetsov, A. D.; Timofeev, YU. M.

Leningrad State Univ., Leningrad, USSR

Trans In: Sov. Meteorol. and Hydroli (USA), No. 9, 17-23 (1978)

Coden: SMHYDK

13. THE ERROR IN SATELLITE RETRIEVED TEMPERATURE PROFILES DUE TO THE EFFECTS OF ATMOSPHERIC AEROSOL PARTICLES

Stowe, L. L.; Fleming, H. E.

Nat. Envir. Sat. Service, Washington, DC, USA

Remote Sensing Environ., (USA), Vol. 9, No. 57-6, (February 1980)

Coden: JRSEEA

## SCR

### (Selective Chopper Radiometer)

1. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
I. INTRODUCTION

Houghton, J. T.; Smith, S. D.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320 No.1540 23-33 (1970)

2. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
II. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS D

Abel, P. G.; Ellis, P. J.; Houghton, J. T.; Peckham, G.;  
Rodgers, C. D.; Smith, S. D.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320, No. 1540, 35-55 (1970)

3. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURES FROM SATELLITES.  
III. MEASUREMENTS UP TO 35 KM ALTITUDE WITH A BALLOON-BORNE  
SELECTIVE CHOPPER RADIOMETER

Abel, P. G.; Houghton, J. T.; Matley, J. B.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol.320, No.1540 57-69 (1970)

4. INFRA-RED ATMOSPHERIC TEMPERATURE SOUNDING FROM SATELLITES

Ellis, P. J.; Peckham, G.; Sandwell, R.; Smith, S. D.;  
Houghton, J. T.; Rodgers, C. D.; Williamson, E. J.  
Heriot-Watt Univ. Riccarton, Currie, Scotland  
Radio and Electron. Eng. (GB) Vol.42, No.4 155-61 (April 1972)  
Codon: RDEEA4

5. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
IV. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS 5

Ellis, P.; Holah, G.; Houghton, J. T.; Jones, T. S.; Peckham, G.;  
Peskett, G. D.; Pick, D. R.; Rodgers, C. D.; Roscoe, H.;  
Sandwell, R.; Smith, S. D.; Williamson, E. J.  
Heriot-Watt Univ., Edinburgh, Scotland;  
Proc. R. Soc. A (GB), Vol. 334, No. 1597, 149-70 (1973)

6. CLOUD TOP HEIGHTS FROM TEMPERATURE SOUNDING INSTRUMENTS

McCleese, D. J.; Wilson, L. S.  
Dept. of Atmospheric Phys., Oxford Univ., Oxford, England  
Q. J. R. Meteorol. Soc. (GB), Vol. 102, No. 434, 781-90 (October 1976)  
Codan: QJRMAM

7. KELVIN WAVES IN THE EQUATORIAL MIDDLE ATMOSPHERE OBSERVED BY THE  
NIMBUS 5 SCR

Hirota, I.  
Geophys. Inst., Kyoto Univ., Kyoto, Japan  
J. Atmos. Sci. (USA), Vol. 36, No. 2, 217-22, (February 1979)  
Codan: JAHSK

8. INTERPRETATION OF NIMBUS 5 SCR DATA FOR OBTAINING VERTICAL TEMPERATURE  
PROFILES

Molnar, G. Y.  
Dept. of Atmospheric Phys., Univ. of Oxford, Oxford, England  
W. J. R. Meteorol. Soc. (GB), Vol. 105, No. 444, 461-7 (April 1979)  
Codan: QJRMAM

THIR

(Temperature Humidity Infrared Radiometer)

1. IMPROVEMENT OF SYNOPTIC SCALE MOISTURE AND WIND FIELD ANALYSIS  
USING THE NIMBUS 4 THIR 6.9 MICROMETER OBSERVATIONS

Steranka, J.; Allison, L. J.; Salomonson, V. V.  
Goddard, NASA, Greenbelt, MD.  
Bull. AM. Meteorol. Soc. (USA), Vol. 53, No. 5, 508 (May 1972)  
Codan: BAMAT

2. APPLICATION OF NIMBUS 4 THIR 6.7 MICROMETER OBSERVATIONS TO REGIONAL AND  
GLOBAL MOISTURE AND WIND FIELD ANALYSES

Steranka, J.; Allison, L. J.; Salomonson, V. V.  
NASA, Greenbelt, MD., USA  
J. Appl Meteorol. (USA), Vol. 12, No. 2, 386-95 (March 1973)  
Codan: JAMOAX

3. NIMBUS 4 OBSERVATIONS OF CHANGES IN TOTAL OZONE AND STRATOSPHERIC  
TEMPERATURE DURING A SUDDEN WARMING

Ghazi, A.

NASA, Greenbelt, MD., USA

J. Atmos. Sci. (USA) Vol. 31, No. 8, 2197-206 (November 1974)

Coden: JAHSK

TOVS

(TIROS Operational Vertical Sounder)

1. DETERMINATION OF MOISTURE FROM NOAA POLAR ORBITING  
SATELLITE SOUNDING RADIANCES

Hayden, C. M.; Smith, W. L.; Woolf, H. M.

National Earth Satellite Service, NOAA, Madison, WI

Jour. of Appl. Meteorology, Vol. 20, No. 4, pp 450-66  
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Weinreb, M. P.; Fleming, H. E.; McMillin, L. M.; Neuendorffer, A. C.

Nat. Earth Sat. Service

NOAA, Washington, D. C.

NOAA Technical Rept. NESS 85

(September 1981)

3. ATMOSPHERIC SOUNDING USERS' GUIDE

Werbowski, A., Editor

Nat. Earth Sat. Service

NOAA, Washington, D.C.

NOAA Technical Rept. NESS-83

(April 1981)

## VAS

### (VISSR Atmospheric Sounder)

#### 1. VAS DEMONSTRATION SOUNDING WORKSHOP: THE PROCEEDINGS OF A SATELLITE SOUNDING WORKSHOP

Endres, D. L.; Uccellini, L. W.  
Goddard, NASA, Greenbelt, MD.  
Rept No: NASA-CP-2157 (July 1980)  
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#### 2. FIRST SOUNDING RESULTS FROM VAS-D

Smith, W. L.; Wolf, H. M.; Hayden, C. M.  
National Earth Satellite Service, NOAA, Madison, WI  
Suomi, V. E.; Menzel, W. P.; Sromovsky, L. A.; Reversomb, H. E.;  
Erickson, D. N.; Mosher, F. R.  
Space Science and Eng. Center  
University of Wisconsin, Madison, WI  
Bull. American Meteorological Society, Vol. 62, No. 2, pp 232-36  
(February 1981)

## VISSR

### (Visible IR Spin Scan Radiometer)

#### 1. THE ROLE OF SATELLITES IN THE TROPICAL OBSERVING SYSTEM

Houghton, J. T.  
Dept. of Atmospheric Phys., Oxford Univ., Oxford, England  
Shaw, D.B. (Editors)  
Meteorology Over the Tropical Oceans, 261-73, 21-25 (August 1978)  
Publ: Royal Meteorological Soc., Bracknell, England 1978

#### 2. SIMULTANEOUS CLOUD COMPARISONS USING DIGITAL RADAR AND SATELLITE MEASUREMENTS

Poellot, M. R.; Reynolds, D. W.  
Dept. of Aviation, Univ. of North Dakota, Grand Forks, ND, USA  
Space Instrumentation for Atmospheric Observation. IEEE Region V  
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3. AN APPLICATION OF A GEOSTATIONARY SATELLITE RAIN ESTIMATION TECHNIQUE  
TO AN EXTRATROPICAL AREA

Wylie, D. P.

Space Sci. and Engng. Center, Univ. of Wisconsin, Madison, WI, USA

J. Appl. Meteorol. (USA), Vol. 18, No. 12, 1640-8 (December 1979)

Coden: JAMOAX

#### VTPR

(Vertical Temperature Profile Radiometer)

1. CIRCULATION FEATURES OF THE STRATOSPHERE DERIVED FROM RADIOMETRIC  
TEMPERATURE MEASUREMENTS WITH THE TIROS VII SATELLITE

Kennedy, J. S.; Nordberg, W.

Goddard, NASA, Greenbelt, Md.

Rept No: NASA-TM-X-55859; X-620-67-134 (March 1967)

2. ACCURACY AND COVERAGE OF TEMPERATURE DATA DERIVED FROM IR RADIOMETER  
ON NOAA 2 SATELLITE

Jastrow, R. J.; Halem, M.

Goddard Space Institute, NASA, New York USA

J. Atmos Sci (USA), Vol. 30, No. 5, 958-64 (July 1973)

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PROFILE RADIOMETER (VTPR) OF THE NOAA 2 SATELLITE

Johnson, K. W.

Nat. Weather Service, NOAA, Washington, USA

EOS. Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 277 (April 1973)

4. EXPECTED ACCURACY OF TROPOPAUSE HEIGHT AND TEMPERATURE AS  
DERIVED FROM SATELLITE RADIATION MEASUREMENTS

Strand, O. N.

Environmental Research Laboratories

NOAA, Boulder, Col.

NOAA Technical Report ERL 295-WPL-28  
(December 1973)

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Lauritson, L.A.; Luebke, R.C.; McMillin, L.M.; Pritchard, J.A.;  
Weinreb, M.P.; Werbowetzke, A.  
Nat. Environ., Sat. Serv., NOAA, Washington, DC USA  
EOS Trans. Am. Geophys. Union (USA), Vol. 54, No.4, 276 (April 1973)

6. ITERATIVE RETRIEVAL AND STATISTICAL SPECIFICATION OF  
ATMOSPHERIC THICKNESSES FROM VTPR CLEAR COLUMN RADIANCE DATA

Moran, Douglas Ray (Masters Thesis) (March 1974)  
Naval Postgraduate School

7. DIRECT APPLICATION OF VTPR DATA

Valovcin, Francis R.  
Air Force Cambridge Research Labs.  
Rept No: AFCRL-TR-74-0591 (1974)

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Dyck, Harry Milton Jr (Masters Thesis)  
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PREDICTIONS

Duncan, Louis D.; Seagraves, Mary Ann  
Army Electronics Command Fort Monmouth NJ  
Rept No: ECOM-5815 (March 1977)

10. DERIVING MESOSCALE TEMPERATURE AND MOISTURE FIELD FROM SATELLITE  
RADIANCE MEASUREMENTS OVER THE UNITED STATES

Hillger, D. W.; Vonderharr, T. H.  
Dept. Of Atmospheric Sci., Colorado State Univ., Fort Collins, CO, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 7, 715-26 (July 1977)  
Codon: JAMOAX

11. A TECHNIQUE FOR ESTIMATING ATMOSPHERIC MOISTURE PROFILES FROM  
SATELLITE MEASUREMENTS

Weinreb, M. P.; Crosby, D. S.  
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12. SENSITIVITY OF SATELLITE RETRIEVALS OF TEMPERATURE TO ERRORS  
IN ESTIMATES OF TROPOSPHERIC WATER VAPOR

Weinreb, M. P.

Nat. Envir. Sat. Serv., NOAA, Washington, DC USA

J. Appl. Meteorol. (USA), Vol. 16, No. 6, 605-13 (June 1977)

Coden: JAMOAX

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Hillger, D. W.; Vonderhaar, T. H.

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Coden: JAHSAX

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